

FIG. 1A
Prior Art

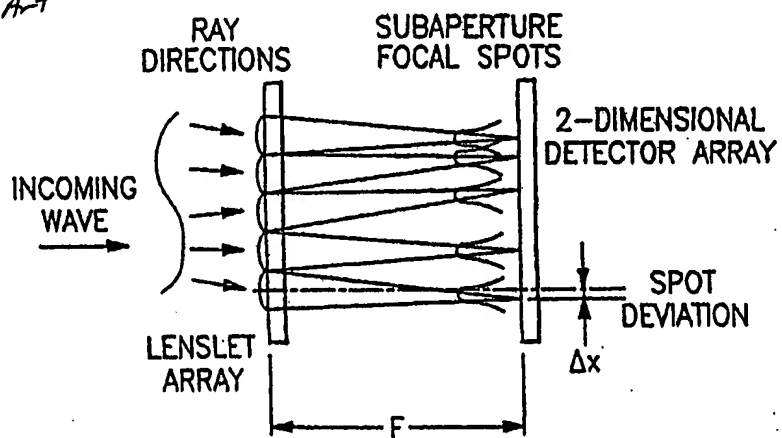


FIG. 1B
Prior Art

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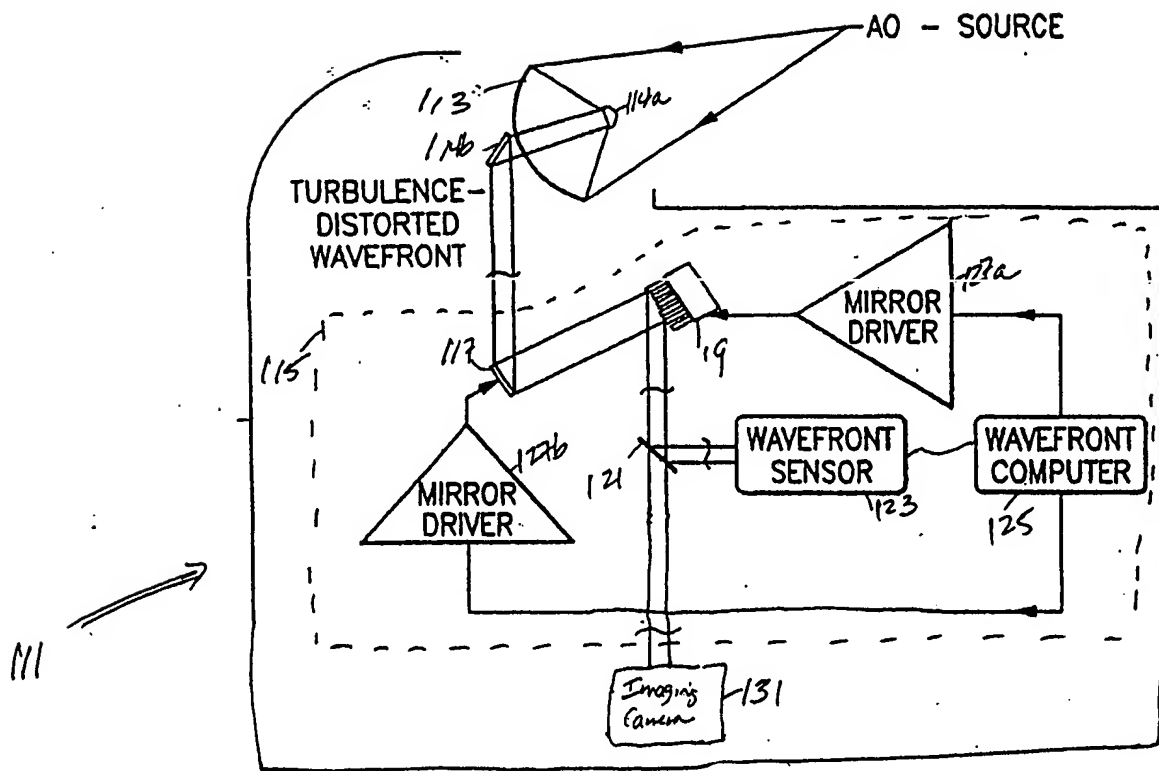


Fig. 2

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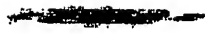


Fig. 3A

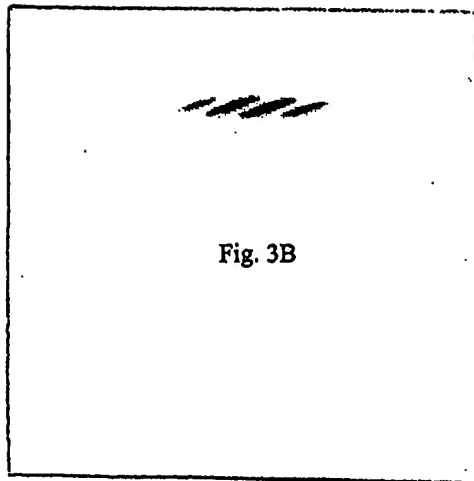


Fig. 3B

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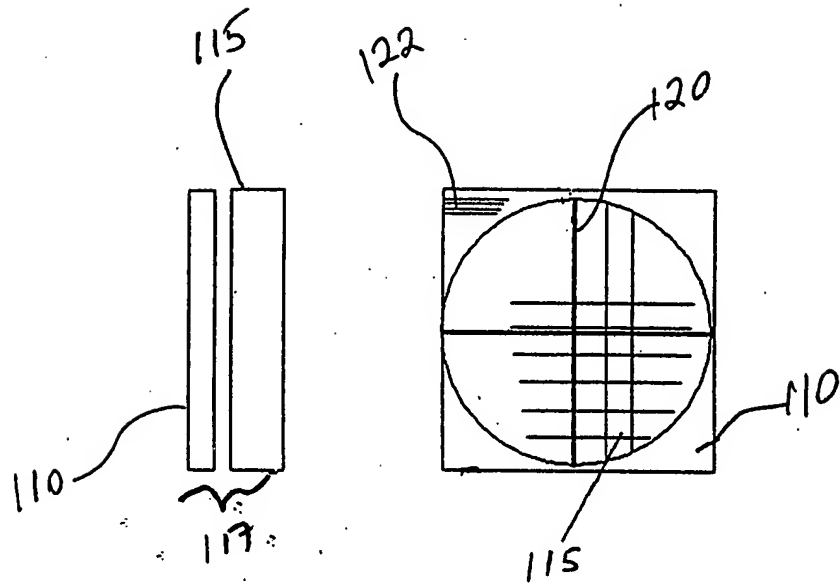


Fig. 4A

Fig. 4B

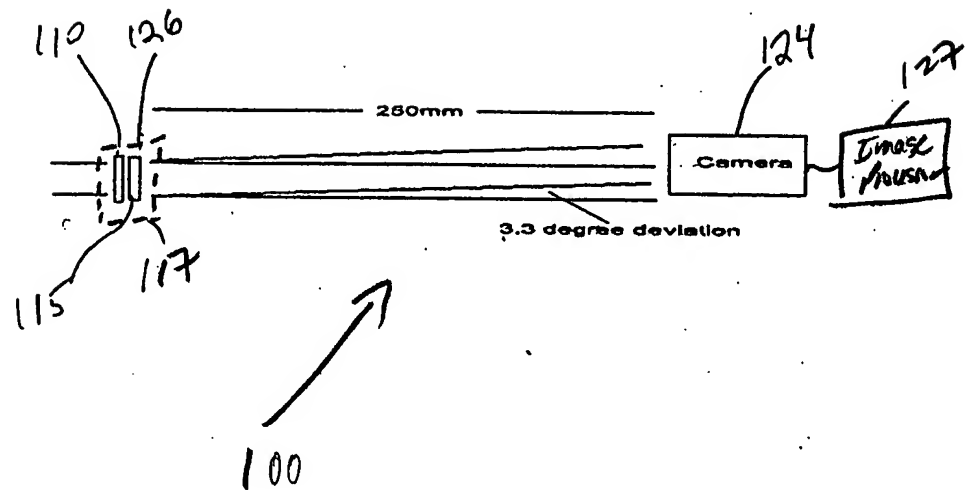


Fig. 5

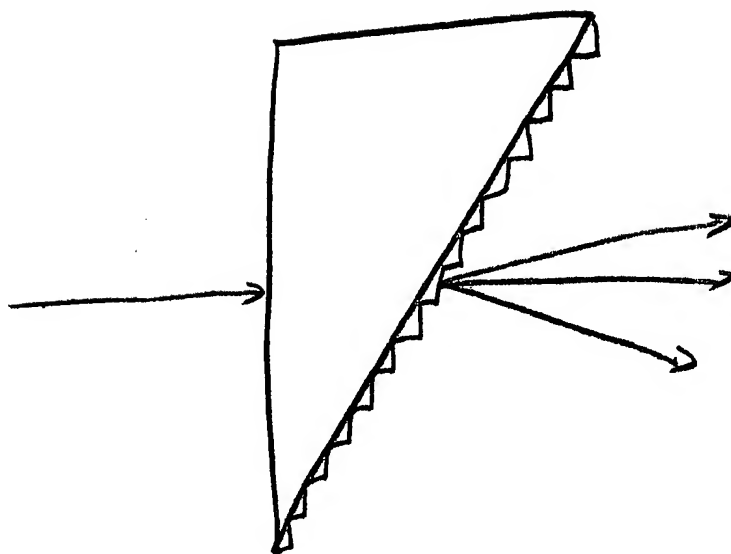


FIG. 4C

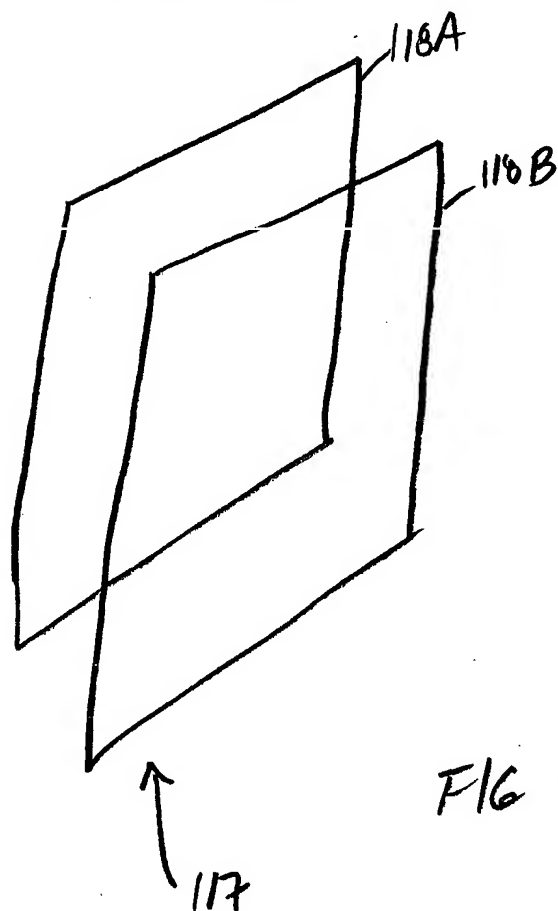


FIG. 4D

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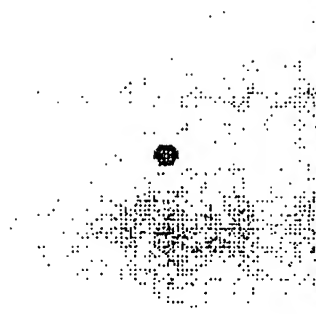


Fig. 6A

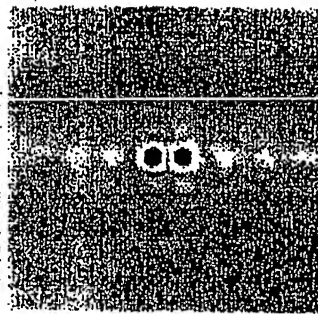


Fig. 6B

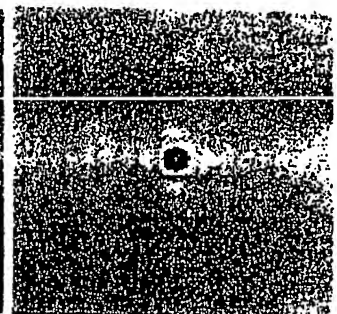


Fig. 6C

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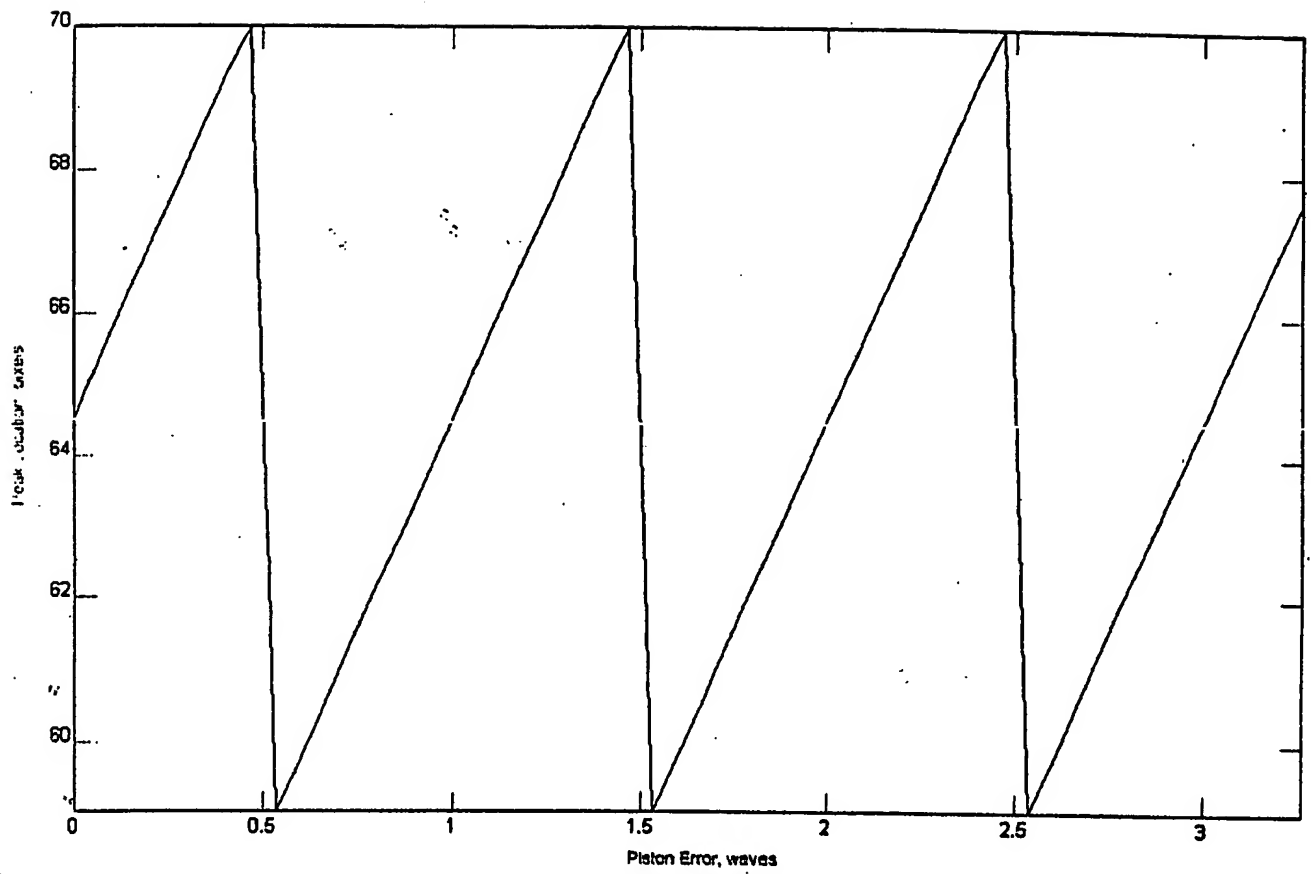


Fig. 7

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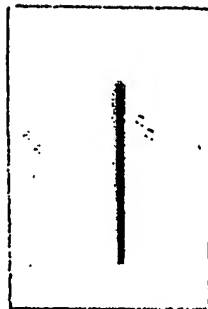


Fig. 8A

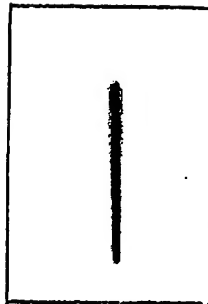


Fig. 8B

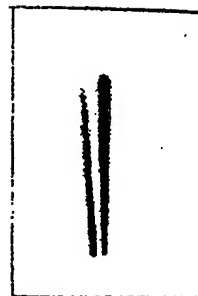


Fig. 8C

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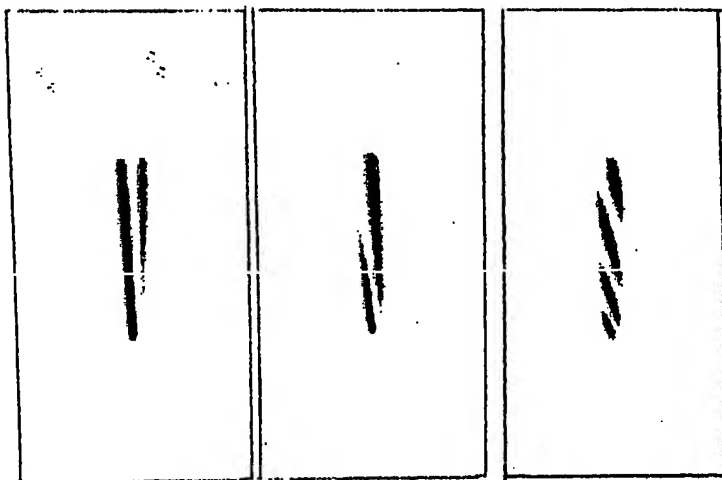


Fig. 8D

Fig. 8E

Fig. 8F

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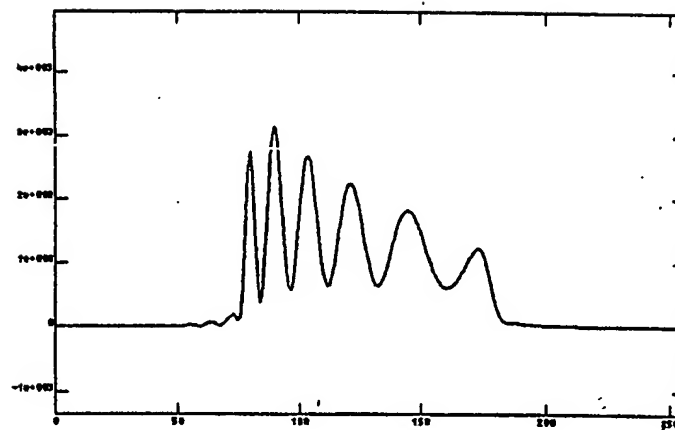


Fig. 9

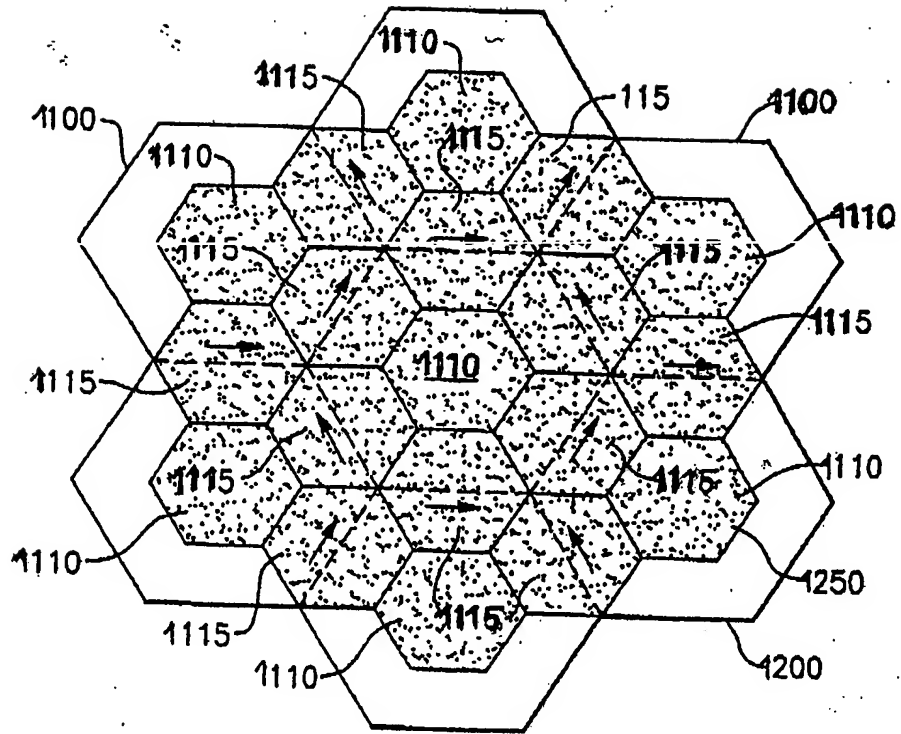


Fig. 10

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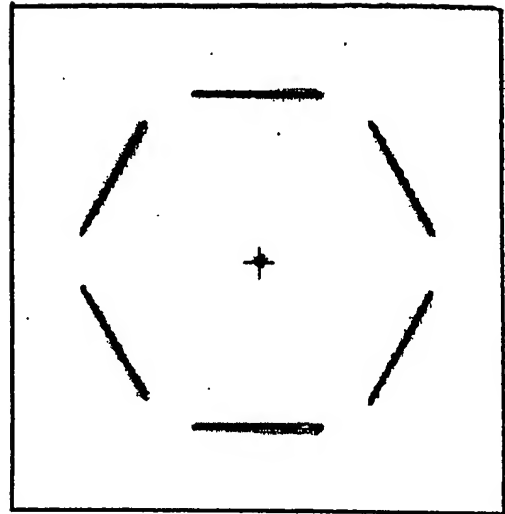


Fig. 11B

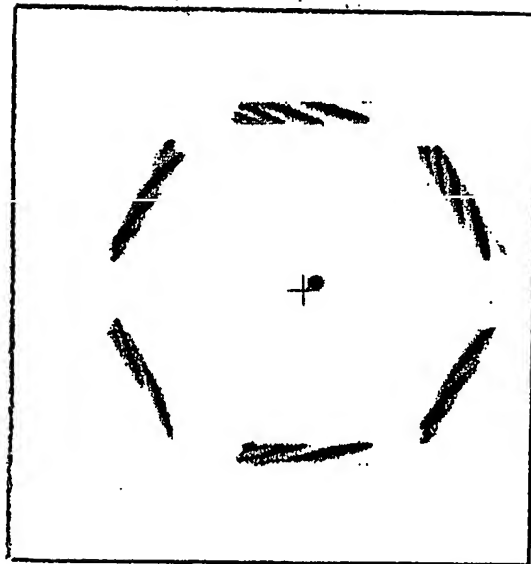


Fig. 11A

BEGIN

dispersion element aligned to disperse focal spot primarily in a direction parallel to edge of potential phase step 1201

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Capture image of dispersion of the focal spot produced by the dispersion element and the interference fringes therein, and optionally apply signal processing techniques to improve signal-to-noise ratio of the interference fringes therein. 1203

Calculate 2D Gradient of the image and derive slope of the interference fringes based upon the gradient. slope provides the sign of the estimated phase step error derived in step 1217 1205

for a predetermined number of slices through the image that are parallel to the direction of dispersion 1207

calculate 1D FFT of slice 1209

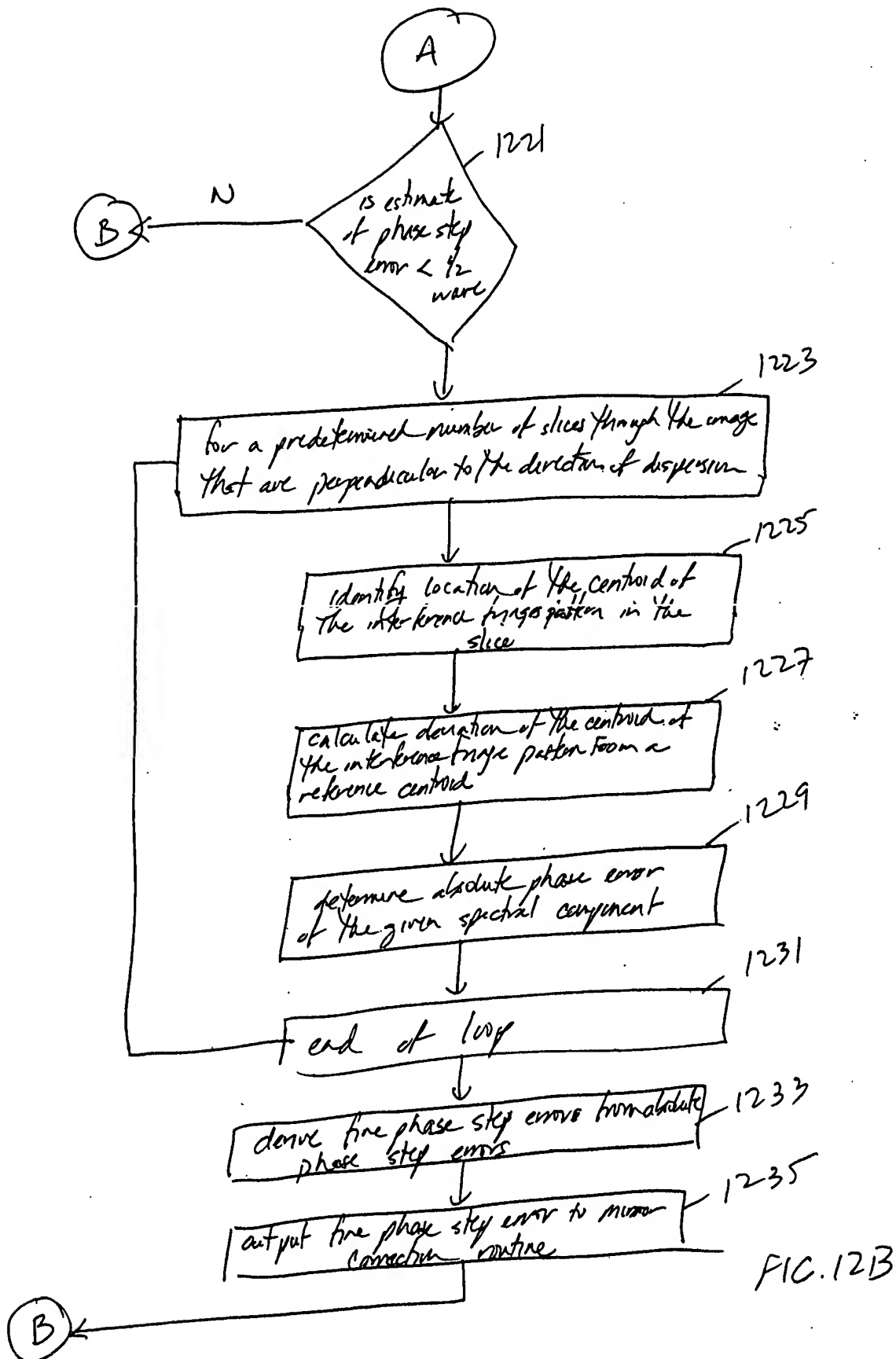
identify maximum value in 1D FFT of slice 1211

end of loop through slices 1213

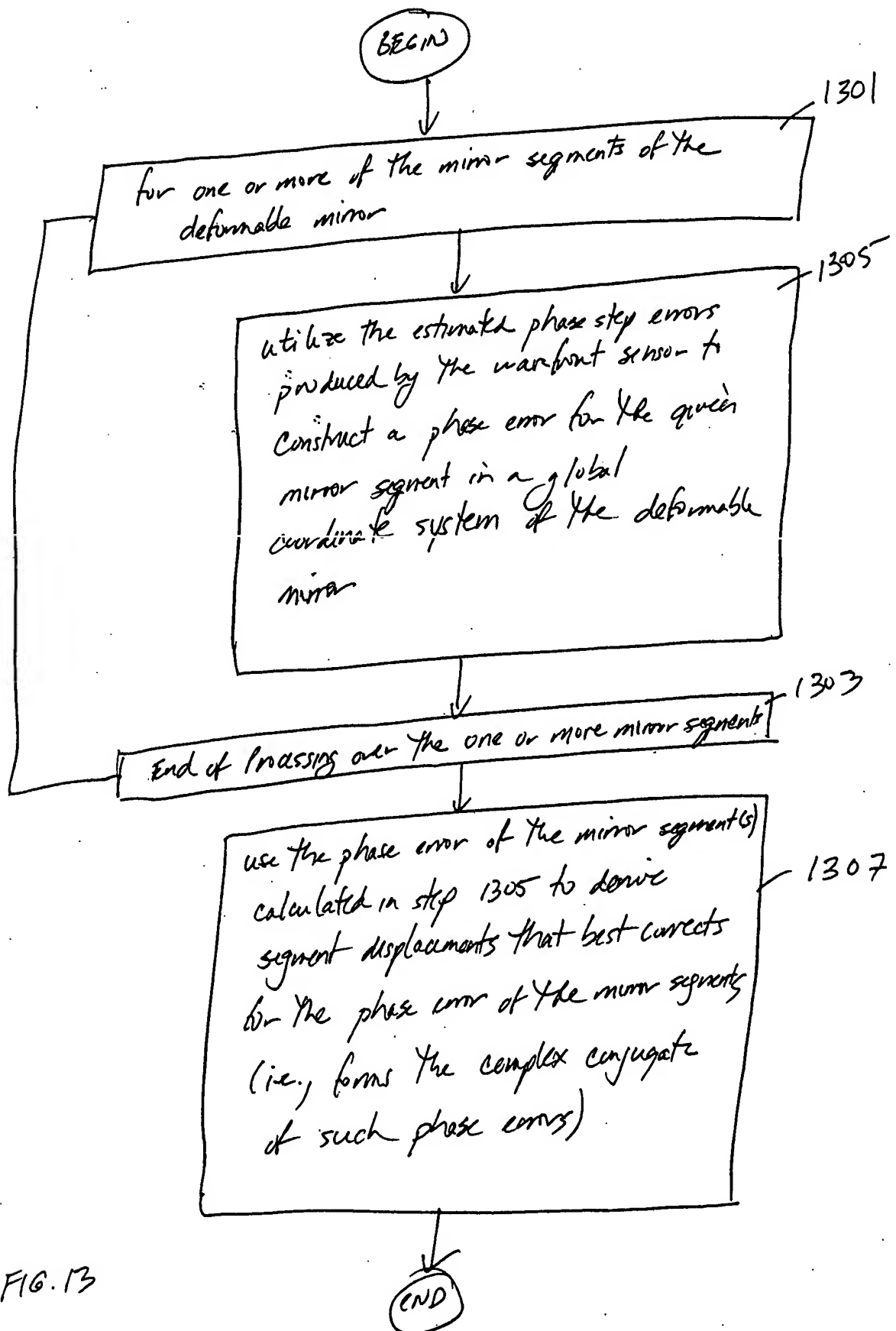
derive spatial frequency value from maximums identified in step 1211 1215

derive estimate of phase step error based upon the sign (step 1205) and the spatial frequency value (step 1215) 1217

output estimate of phase step error to mirror correction routine 1219



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